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## Textile Study: Wool

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## TEXTILE STUDY - WOOL

by  
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### Scope of the Industry:

Materials made from woolen and worsted yarns are among our most useful and valued textiles. The raw material is procured from the fleeces of the various breeds of sheeps, goats, and other animals living in all parts of the world. The clothes made from this wool or hair vary greatly, as the fiber ranges from the short staple, soft, crumpy, dull merino wool to the long, silky, lustrous wool of the Leicester sheep of England, the glossy hair of the Angora goat of Constantinople, or the long, coarse hair of the Chinese sheep. The length of the staple varies from 2 - 20 inches. The fiber of most of the shorter wools is covered with minute serrations which are induced to draw together when subjected to moist heat. This quality of shrinking or felting is utilized in making some classes of goods such as doeskins and broadcloths. On account of these variations the industry may be said to include, in general terms: -

1. Materials made from dull, soft, loosely twisted yarn of un-combed, short stapled wool, such as blankets, sweater material, broadcloth, and many flannels which are generally termed woolens.
2. Cloths from carefully combed, long, more or less lustrous wool made into closely twisted yarn and woven into serges, covert cloth, mohairs, which are generally called worsteds.

### STANDARD WOOL MATERIALS

Bedford Cord - Bedford Cord weave, a soft material. Used for babies' coats, skirts and dresses.

Broadcloth - Closely woven fabric with a smooth glossy surface: The fibers are picked to make a nap, which is then pressed down, leaving a beautiful finish. Used for suits and dresses.

Cashmere - Soft loosely woven pliable material used for dresses and baby coats.

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## #2 - Wool

Challie - Plain weave; light weight, loosely woven, pattern printed, used for baby dresses, waists and kimonas.

Cheviot - A twilled weave with both rough and smooth finish, used for suits and coats.

Flannel - Plain weave. Used for children's clothes, petticoats and dresses because it is soft, warm, inexpensive and not irritating to the skin.

Gabardine - Closely woven, diagonal thread, well matched.

### Serge -

- a. French - Closely woven, softer and finer than either of storm serges. Design brought out by weave.
- b. Storm - Coarser than French. Used for suits and dresses.

Tweed - Rough, unfinished, coarse material, because of its durability and warmth used for suitings.

## CHARACTERISTICS OF WOOL

1. Wool fiber is covered with fine scales. Friction or moisture cause these scales to mat together. This is called shrinking.
2. Wool is a strong fiber. It feels soft yet is wiry and springy. This is the reason woolen garments hold their shape.
3. Natural wool is elastic. Elasticity adds to the strength of the cloth and to its comfort as a covering for the body but this quality is impaired by careless laundering.
4. Wool is a poor conductor of heat. Therefore it retains body heat and is a warm fabric.
5. Wool is a light weight fiber. Garments made of wool are light in weight.
6. Wool absorbs moisture readily. Woolen undergarments will absorb perspiration readily. But woolen underwear requires frequent laundering to keep it sanitary and it is the hardest fabric to launder and is the least cleanly of any of the fibers.
7. Wool dyes readily and holds the dye. This property makes wool or worsted the most satisfactory garment for out of door use.

## ADULTERATIONS OF WOOL

1. Cotton is finished to look and feel like wool. It is substituted for wool in many blankets, flannels, eiderdown, or knotted goods.

### #3 - Wool

2. Several threads may be of cotton as found in cheap shepherd's plaid.
3. Reworked wool, called shoddy is found in many woolen garments on the market today. Shoddy consists of odds and ends obtained from the factory, the tailor and the rag picker. This is added to new wool. The objection to the use of shoddy is that often materials sold for high prices and supposed to be of new wool are made for the most part from old short wool and the customer is not receiving what he asks for and pays for.

### TESTS FOR WOOLENS AND WORSTEDS

1. Hold cloth up to light. Is it closely, firmly woven? If it is sleazy the cloth will not hold its shape.
2. Ravel out warp and woof threads. Try breaking them if warp is strong and woof weak, the material will not wear well.
3. Break threads. Wool pulls apart with kinky ends, while cotton breaks with a snap.
4. Wool tears with a dull muffled sound. It has a round kinky edge. If cotton is present it tears more easily. The ends will be unlike.
5. Brush surface of napped cloth briskly. Does nap loosen, and drop off? If so, cloth will wear threadbare and shabby.
6. Burning Test - Wool burns very slowly and gives off odor of burning feathers. If cotton is present it will burn with a flame.